

IN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A transmission system for transmitting datawords via a multicarrier signal (11) from a transmitter (10) to a receiver (12), the transmitter (10) comprising:  
a generator (20) for generating for each dataword (19) a number of alternative digital sequences (21); and  
~~the transmitter (10) further comprising a selector (22) for selecting the an alternative digital sequence with the a lowest peak power value (23) for transmission to the receiver (12), characterized in that wherein the generator (20) is embodied so as operable to combine mutually different digital words with the dataword (19) in order to form the alternative digital sequences (21).~~
2. (Currently Amended) A transmission system according to Claim 1, characterized in that wherein the generator (20) comprises:  
an augmentor (40) for generating for each dataword (19) a number of intermediate sequences (41) by combining the digital words with the dataword (19); and  
~~the generator (20) further comprising a scrambler (42) for scrambling the intermediate sequences (41) in order to form the alternative digital sequences (21).~~

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3. (Currently Amended) A transmission system according to Claim 2, characterized in that wherein the augmentor (40) is embodied so as operable to generate for each dataword (19)  $2^r$  intermediate sequences (41) by combining all possible digital words of length  $r$  with the dataword (19).

4. (Currently Amended) A transmission system according to Claim 1, characterized in that wherein the generator (20) comprises:  
  
a splitter (60) for splitting the dataword (19) and the digital words into fragments (61);  
and  
the generator (20) further comprising a combiner (62) for combining the fragments (61) in order to form the alternative digital sequences (21).

5. (Currently Amended) A transmission system according to Claim 1, characterized in that wherein the selector (22) comprises:  
an Inverse Discrete Fourier Transformer (50) for calculating for each alternative digital sequence the an Inverse Discrete Fourier Transform (IDFT)[[,]];  
the selector (22) further comprising means (52) for determining for each alternative digital sequence the a maximum of the calculated IDFT values (51); and  
the selector (22) also comprising means (54) for selecting the an alternative digital sequence with the a lowest maximum (23) for transmission to the receiver (12).

6. (Currently Amended) A transmitter (10) for transmitting datawords via a multicarrier signal (11) to a receiver (12), the transmitter (10) comprising:  
a generator (20) for generating for each dataword (19) ~~a number of alternative digital sequences (21); and~~

*PJH*  
~~the transmitter (10) further comprising a selector (22) for selecting the an alternative digital sequence with the a lowest peak power value (23) for transmission to the receiver (12), characterized in that wherein the generator (20) is embodied so as operable to combine mutually different digital words with the dataword (19) in order to form the alternative digital sequences (21).~~

7. (Currently Amended) A transmitter according to Claim 6, ~~characterized in that wherein~~ the generator (20) comprises:

an augmentor (40) for generating for each dataword (19) ~~a number of~~ intermediate sequences (41) by combining the digital words with the dataword (19); ~~and~~  
~~the generator (20) further comprising a scrambler (42) for scrambling the intermediate sequences (41) in order to form the alternative digital sequences (21).~~

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8. (Currently Amended) A transmitter according to Claim 7, characterized in that  
wherein the augmentor (40) is embodied so as operable to generate for each dataword (19)  $2^r$  intermediate sequences (41) by combining all possible digital words of length  $r$  with the dataword (19).

9. (Currently Amended) A transmitter according to Claim 6, characterized in that  
wherein the generator (20) comprises:

  
a splitter (60) for splitting the dataword (19) and the digital words into fragments (61);  
and  
the generator (20) further comprising a combiner (62) for combining the fragments (61) in order to form the alternative digital sequences (21).

10. (Currently Amended) A transmitter according to Claim 6, characterized in that  
wherein the selector (22) comprises:

an Inverse Discrete Fourier Transformer (50) for calculating for each alternative digital sequence the an Inverse Discrete Fourier Transform (IDFT)[[.,.]];  
the selector (22) further comprising means (52) for determining for each alternative digital sequence the a maximum of the calculated IDFT values (51); and  
the selector (22) also comprising means (54) for selecting the alternative sequence with the a lowest maximum (23) for transmission to the receiver (12).

11. (Currently Amended) A method of transmitting datawords via a multicarrier signal (11) from a transmitter (10) to a receiver (12) comprising the steps of:

[[[-]]] generating for each dataword (19) ~~a number of alternative~~ digital sequences (21);

*B/C*  
and

[[[-]]] selecting ~~the~~ an alternative digital sequence with ~~the~~ a lowest peak power value (23) for transmission to the receiver (12),

~~characterized in that the step of generating the alternative sequences comprises the step of~~  
~~ef:~~

~~-combining mutually different digital words with the dataword (19) in order to form the alternative sequences (21)~~

wherein the step of generating the alternative digital sequences comprises the step of  
combining mutually different digital words with the dataword to form the alternative sequences.

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12. (Currently Amended) A method of transmitting datawords via a multicarrier signal (11) according to Claim 11, ~~characterized in that wherein~~ the step of generating the alternative sequences combining mutually different digital words with the dataword comprises the steps of:

[[-]] generating for each dataword (19) a number of intermediate sequences (41) by combining ~~mutually different~~ the digital words with the dataword (19),

[[-]] scrambling the intermediate sequences (41) ~~in order~~ to form the alternative digital sequences (21).

13. (Currently Amended) A method of transmitting datawords via a multicarrier signal (11) according to Claim 12, ~~characterized in that wherein~~ for each dataword (19)  $2^r$  intermediate sequences (41) are generated by combining all possible digital words of length  $r$  with the dataword (19).

14. (Currently Amended) A method of transmitting datawords via a multicarrier signal (11) according to Claim 11, ~~characterized in that wherein~~ the step of generating the alternative sequences combining mutually different digital words with the dataword comprises the steps of:

[[-]] splitting the dataword (19) and the digital words into fragments (61),

[[-]] combining the fragments (61) ~~in order~~ to form the alternative sequences (21).

15. (Currently Amended) A method of transmitting datawords via a multicarrier signal (11) according to Claim 11, ~~characterized in that~~ wherein the step of selecting ~~the~~ an alternative sequence with ~~the~~ a lowest peak power value (23) comprises the steps of:

[[[-]]] calculating for each alternative sequence ~~the~~ an Inverse Discrete Fourier Transform

(IDFT),

[[[-]]] determining for each alternative sequence ~~the~~ a maximum of the calculated IDFT values (51),

[[[-]]] selecting ~~the~~ an alternative sequence with ~~the~~ a lowest maximum (23) for transmission to the receiver (12).

16. (New) A transmission system according to Claim 1, further comprising a receiver, wherein the receiver is operable to:

receive the alternative digital sequence; and

restore the dataword from the alternative digital sequence.

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17. (New) A transmission system according to Claim 2, further comprising a receiver, wherein the receiver is operable to:

receive the alternative digital sequence;  
descramble the alternative digital sequence; and  
restore the dataword by deleting the digital word from the descrambled alternative digital sequence.

18. (New) A method of transmitting datawords via a multicarrier signal according to Claim 11, further comprising the steps of:

receiving the alternative digital sequence; and  
restoring the dataword from the alternative digital sequence.

19. (New) A method of transmitting datawords via a multicarrier signal according to Claim 12, further comprising the steps of:

receiving the alternative digital sequence;  
descrambling the alternative digital sequence; and  
restoring the dataword by deleting the digital word from the descrambled alternative digital sequence.